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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/613,032	07/10/2000	Brian A. LaMacchia	MS#154746.1/40062.65US04	9588

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EXAMINER

SHIN, KYUNG H

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 02/27/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/613,032

Applicant(s)

LAMACCHIA ET AL.

Examiner

Kyung Shin

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2000 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1-8-01, 11-27-02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- This action is responding to application papers dated 7/10/2000.
- Claims 1 – 46 are pending. Claims 1, 13, 20, 26, 28, and 40 are independent claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 1- 46** are rejected under 35 U.S.C. 102(e) as anticipated by Scheifler et al. (U.S. Patent No. 6,138,238: File date is Mar. 20, 1998).

Regarding Claims 1, 28, Scheifler discloses a method and a computer program product encoding a computer program of claims determining whether a requested permission, requested by a called code frame, is satisfied within a runtime call stack so as to allow the called code frame to perform a protected operation, the method comprising: (see Abstract)

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- a) associating a permission grant object with a first code assembly in the runtime call stack; (see col. 4, line 63 - col. 5, line 3)
- b) creating a permission request object within the called code frame to demand the requested permission; (see col. 12, lines 46 - 55)
- c) demanding via the permission request object the requested permission from the permission grant object to allow the called code frame to perform the protected operation; (see col. 14, lines 41 - 46)
- d) determining whether the requested permission is provided in association with the first code assembly by the permission grant object, responsive to the demanding operation; (see col. 11, lines 54 - 57)
- e) and permitting execution of the called code frame to perform the protected operation, if the requested permission is provided in association with the first code assembly. (see col. 9, lines 28 - 37)

Regarding Claims 2, 15, 21, 29, 42, Scheifler discloses the method, the runtime system, and the computer program product of claims wherein the called code frame is included within the first code assembly. (see col. 19, line 66 - col. 20, line 2)

Regarding Claims 3, 16, 22, 30, 43, Scheifler discloses the method, the runtime system, and the computer program product of claims wherein the called code frame is included within a lower level code assembly following the first code assembly in the runtime call stack. (see col. 20, lines 3 - 7)

Regarding Claims 4, 31, Scheifler discloses the method and the computer program product of claims comprising:

associating a second permission grant object with a second code assembly loaded in the runtime call stack, the second code assembly preceding the first code assembly in the runtime call stack. (see col. 18, lines 46 - 56)

Regarding Claims 5, 32, Scheifler discloses the method and the computer program product of claims, further comprising:

determining, whether the requested permission is provided in association with the second code assembly by the second permission grant object. (see col. 18, lines 57 - 65)

Regarding Claims 6, 8, 33, 35, Scheifler discloses the method and the computer program product of claims wherein the operation of permitting execution of the called code frame comprises:

- a) asserting within the first code assembly that a permission grant object associated with at least one other code assembly preceding the first code assembly need not be evaluated to determine whether a specified permission is satisfied in association with the other code assembly in the runtime call stack, regardless of whether the specified permission is provided by the permission grant object associated with the other code assembly; (see col. 18, lines 4 - 14)

- b) and permitting execution of the called code frame to perform the protected operation, if the requested permission is a subset of the specified permission. (see col. 9, lines 28 - 33)

Regarding Claims 7, 34, Scheifler discloses the method and the computer program product of claims wherein the operation of permitting execution of the called code frame comprises.

- a) asserting within the first code assembly that a permission grant object associated with at least one other code assembly preceding the first code assembly does not satisfy a specified permission, within the runtime call stack, regardless of whether the specified permission is provided by the permission grant object associated with the other code assembly; (see col. 16, line 66 - col. 17, line 8)
- b) and preventing execution of the called code frame to perform the protected operation, only if the requested permission is a subset of the specified permissions. (see col. 19, lines 53 - 59)

Regarding Claims 9, 36, Scheifler discloses the method and the computer process of claims wherein the permission object encoded in the code assembly, and the corresponding permission objects encoded in the permission grant object satisfy a common permission interface. (see col. 20, lines 3 - 12)

Regarding Claims 10, 11, 12, 17, 18, 19, 23, 24, 25, 37, 38, 39, 44, 45, 46, Scheifler discloses the method, the runtime system, and the computer program product of claims

wherein the operation of associating a first permission grant object with a first code assembly comprises:

associating the first permission grant object with an individual method, class and module of the first code assembly. (see col. 11, line 66 - col. 12, line 5)

Regarding Claims 13, 40, Scheifler discloses a method determining whether a requested permission, requested by a called code frame, is satisfied within a runtime call stack so as to allow the called code frame to perform a protected operation, the method comprising:

- a) associating a first permission grant object with a first code assembly in the runtime call stack; (see col. 14, lines 6 - 12)
- b) associating a second permission grant object with a second code assembly in the runtime call stack; (see col. 14, lines 6 - 12)
- c) computing a first intersection of permissions provided by the first permission grant object and the second permission grant object; (see col. 14, line 62 - col. 15, line 4)
- d) recording the first intersection of permissions to provide a cached permission intersection; (see col. 13, lines 31 - 55)
- e) demanding the requested permission; (see col. 14, lines 40 - 45)
- f) and permitting execution of the called code frame if the requested permission is a subset of the cached permission intersection. (see col. 9, lines 28 - 37)

Regarding Claims 14, 41, Scheifler discloses the method and a computer program product encoding a computer program of claims further comprising:

- a) associating a third permission grant object with a third code assembly in the runtime call stack; (see col. 14, lines 31 - 37)
- b) computing a second intersection of permissions provided by the first permission grant object, the second permission grant object, and the third permission grant object; (see col. 14, line 62 - col. 15, line 4)
- c) and recording the second intersection of permissions to provide the cached permission intersection. (see col. 13, lines 31 - 35)

Regarding Claim 20, Scheifler discloses a runtime system for determining whether a requested permission, requested by a called code frame, is satisfied within a runtime call stack so as to allow the called code frame to perform a protected operation, the runtime system comprising:

- a) a first code assembly loaded into the runtime call stack; (see col. 14, lines 5 - 12)
- b) a first permission grant object associated with the first code assembly comprising one or more permissions available to the first code assembly; (see col. 14, lines 31 - 37)
- c) and a first permission request object created by the called code frame requesting the requested permission from the first permission grant object, wherein the called code frame is permitted to execute the protected operation if the first permission request object determines from the permission grant object that the requested permission is satisfied by the first code assembly. (see col. 15, lines 25 - 32)

Regarding Claims 26, 27, Scheifler discloses a runtime system for determining whether a requested permission, requested by a called code frame, is satisfied within a runtime call stack so as to allow the called code frame to perform a protected operation, the runtime system comprising:

- a) a first permission grant object associated with a first code assembly in the runtime call stack; (see col. 14 , lines 31 - 37)
- b) a second permission grant object associated with a second code assembly in the runtime call stack; (see col. 14 , line 62 - col. 15 , line 4)
- c) and a cache storing an intersection of permissions provided by the first permission grant object and the second permission grant object, wherein execution of the called code frame is permitted if the requested permission is a subset of the cached permission intersection. (see col. 13, lines 31 - 35)

Conclusion

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. U.S. Patent No. 6, 044,467 to Gong discloses Secure Class Resolutions Loading and Definition
- b. U.S. Patent No. 6, 389,540 B1 to Scheifler discloses Stack based Access control using Code and Executor Identifiers

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H Shin whose telephone number is 703-305-0711. The examiner can normally be reached on 6:30 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 703-305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KHS

Kyung H Shin
Patent Examiner
Art Unit 2132

KHS
February 20, 2004

Gilberto Barron
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